

FIRE PROTECTION ENGINEER

GRADE: 22

FLSA: EXEMPT

CHARACTERISTICS OF CLASS:

The Fire Protection Engineer performs difficult professional and responsible administrative work to apply fire protection engineering principles and practices to ensure compliance with laws and fire prevention codes included in the City of Rockville Code, the Annotated Code of Maryland and any other applicable code. The work applies to design, construction, and use of new and existing buildings and hazardous processes from a life safety and property protection standpoint. The Fire Protection Engineer's work is both proactive and reactive with contacts on matters requiring cooperation and explanation. Physical demands are moderate and the work includes considerable mental effort and stress in handling multiple projects and meeting deadlines. The work is subject to functional policies and goals under general managerial direction with serious consequences. The incumbent may direct the work of part-time Fire Codes Inspectors.

EXPECTATIONS OF ALL CITY EMPLOYEES:

- Learn and demonstrate an understanding of City, department, division and team goals.
- Serve and meet the needs of customers during routine or emergency situations.
- Ability and willingness to work as part of a team, to demonstrate team skills and to perform a fair share of team responsibilities.
- Ability to assess his/her work performance or the work performance of the team.
- Plan and organize his/her work, time and resources, and if applicable that of subordinates.
- Contribute to the development of others and/or the working unit or overall organization.
- Produce desired work outcomes including quality, quantity and timeliness.
- Communicate effectively with peers, supervisors, subordinates and people to whom service is provided.
- Understand and value differences in employees and value input from others.
- Consistently report to work and work assignments prepared and on schedule.
- Consistently display a positive behavior with regard to work, willingly accept constructive criticism and be respectful of others.

EXAMPLES OF DUTIES:

- Performs detailed technical review and evaluation of a broad scope and complexity of preliminary design and construction documents, including plans and specifications, of all types of new construction and renovation projects and hazardous industrial processes for department approval and compliance with applicable City and State fire laws, regulations and related referenced codes and standards.

- Performs critical review of various fire protection system “shop drawings” prepared by design professionals such as fire protection engineers, mechanical engineers and electrical engineers. Systems include automatic sprinkler, detection and alarm, standpipe, smoke control, wet and dry chemical, and other highly specialized fire protection systems.
- Makes engineering calculations to verify and determine adequacy of design and performance of the systems in accordance with required standards and good engineering practices.
- Confers with and provides professional fire protection engineering advice, guidance and direction to architects, engineers, and other design professionals on acceptable methods and materials of achieving compliance with fire protection criteria of fire and building codes.
- Approves proper methods and designs impacting on the architectural, mechanical, electrical and structural aspects of construction, equipment and processes from a fire protection-engineering standpoint.
- Conducts surveys of complicated occupancies and processes for evaluation of potential fire hazards, exit analysis and construction features relevant to safeguards which ensure reasonable life safety from fire for occupants and the general public.
- Recommends and approves methods of construction by correlating their fire resistance design to fire test data, code criteria and sound fire protection engineering principles.
- Supervises Fire Codes Inspectors in the absence of the Fire Marshall.
- Performs other duties as required.

QUALIFICATIONS:

Required Training and Experience:

Any combination of training and experience substantially equivalent to graduation from an accredited college or university with major course work in Fire Protection Engineering and three years of professional experience in Fire Protection Engineering work or graduation with major course work in Engineering and five years of experience in Fire Protection Engineering work. Possession of an appropriate driver's license valid in the State of Maryland. Possession of (or ability to obtain) certification from the Board of Registration for Professional Engineers for the State of Maryland within a reasonable amount of time, as determined by the City.

Preferred Knowledge, Skills and Abilities:

- Thorough knowledge of the methods, materials and techniques involved in all types of fire protection systems design and installations, building construction, repair and alteration.
- Thorough knowledge of the possible defects and flaws in fire protection system installation, building construction and of effective corrective measures.
- Thorough knowledge of fire and life safety codes, and workmanship and material standards.

- Considerable knowledge of the procedures involved in keeping strict account of permit applications, permits and their status.
- Knowledge of the principles and practices of engineering as applied to the construction field.
- Ability to perform essential job functions.
- Ability to climb stairs and ladders, traverse varied terrain, and use a computer.
- Ability to read and interpret all types of blue prints, working diagrams and specifications encountered, quickly and accurately, and to compare them with construction in progress.
- Ability to deal firmly but fairly and tactfully and to remain calm in dealing with architects, engineers, contractors, developers, craftsmen and the general public.
- Ability to establish and maintain effective working relationships with persons contacted in the course of the work, often while under difficult and contentious circumstances.
- Ability to convey concise and accurate explanations of various ordinances, regulations and rulings.
- Ability to gather information and prepare clear and concise reports based on an analysis of data, identifying and correcting faulty or hazardous plans or conditions.